



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

in the spring. The maximum for carbohydrate reserves for deciduous trees appears to be at the period of leaf-fall, while that for evergreens is at the opening of buds in the spring. There seems to be insufficient evidence that cellulose acts as a winter reserve.—GEO. D. FULLER.

**Lens cells in plants.**—The position of the investigators who contend that the lens cells occurring in the epidermis of various plants are not essentially organs of light perception will be strengthened by the results of SUMMERS,<sup>45</sup> for in the plants studied phototropic movement occurred only before the development of the lenslike cells. The plant studied is a native of Cape Colony, Africa, where it grows under conditions of intense insolation. The character of the epidermis changes with the age of the leaves, which, at the time the lens cells differentiate, are quite rigid. An incrustation of calcium oxalate is found upon the epidermis, and this, we are assured, functions as a protection when solar illumination becomes too strong for the plant.—GEO. D. FULLER.

**Embryo sac and embryo of *Garcinia*.**—A series of investigations on the embryo sac and embryo of angiosperms, by the late Dr. TREUB, has begun to appear,<sup>46</sup> the first paper dealing with two species of *Garcinia* (Guttiferae), *G. Kydia*, and *G. Treubii*. The details of embryo sac formation are described and illustrated, the variations being of minor importance and all referable to categories recorded among angiosperms. The most noteworthy statement is that in reference to the evidence for parthenogenesis, which may be said to be suspected rather than proved. The paper adds another angiospermous genus to those that have been investigated, and still further emphasizes the remarkable uniformity of this great group in its essential morphology.—J. M. C.

**Nuclear extrusion among Fucaceae.**—GARDNER<sup>47</sup> has experimented on the nuclear extrusion of six different forms of Fucaceae: *Fucus evanescens* f. *typicus* Kjellm., *Hesperophycus Harveyanus* Setchell and Gardner, *Pelvetiopsis limitata* Gardner f. *typica* and f. *lata*, *Pelvetia fastigiata* Décne, and *Cystosira Osmundacea* Ag. Many irregularities were noted; for example, in the case of *Hesperophycus* the contents of the oogonium finally divided into two eggs, one of which included a single nucleus and the other seven nuclei; the fate of the eggs after escape from the oogonium was not followed. In the case of *Pelvetia*, the six extra nuclei are cast out between the eggs instead of on the surface.—S. YAMANOUCHI.

<sup>45</sup> SUMMERS, F., On the occurrence of lens cells in the epidermis of *Mesembryanthemum pseudotruncatellum*. Ann. Botany **25**:1137-1145. 1911.

<sup>46</sup> TREUB, M., Le sac embryonnaire et l'embryon dans les angiospermes. I. *Garcinia Kydia* Roxb., *Garcinia Treubii* Pierre. Ann. Jard. Bot. Buitenzorg **24**:1-17. pls. 1-5. 1911.

<sup>47</sup> GARDNER, NATHANIEL LYON, Variations in nuclear extrusion among Fucaceae. Univ. Calif. Publ. Bot. **4**:121-136. pls. 16, 17. 1910.